

infotech by annette lamb and larry johnson

digital photo safaris: authentic learning across the curriculum

A preschooler takes a picture of the family dog.

A teenager shoots a photo using the camera on her cell phone.

A teacher photographs student biome dioramas.

A school librarian captures a photo of a child immersed in reading a book.

A photographer is an artist who creates visual messages. Much like a young writer with a pencil or a keyboard, young artists use cameras to create visual communications. When digital photo technology is combined with authentic high-level assignments, learners develop powerful literacies as well as a passion for learning.

In this article, you will learn to choose a camera, compose quality photographs, and create engaging projects that go beyond the standards to promote a passion for learning. Use your digital cameras to promote powerful literacies, inquiry, and technology-enhanced learning.

CHOOSE A CAMERA

When you shop for a digital camera for yourself or your center, you will find lots of choices. Do you want a camera that is portable, powerful, professional, or practical? Think about your personal and program needs. You may want different cameras for varied functions.

A portable, pocket-sized camera is nice because you can carry it wherever you go. Take photos at the farmer's market for nutrition lessons, local history events for social studies projects, and farm fields for science assignments. Keep in mind, however, that a small camera can be easily lost by students.

A powerful camera is useful for many tasks. For instance, you may wish to zoom in on the face of a coin and then focus on a bird in the top of a tree. Look for features such as zoom, flash, and stability. Audio and movie capabilities are important for many activities.

A professional camera should be considered for the yearbook staff, art department, and other programs that require interchangeable lenses and specialty features for high-quality photo results.

A practical camera makes sense for most library and classroom activities. Seek a durable camera that is easy to use for quick photos of student projects, field trips, and other everyday applications.

Sony, Canon, and Nikon are well-known brands, but so are many others. Use tools such as www.cnet.com to compare ratings. Examine features and price. It is easiest if you select cameras that all use the same memory cards and connection cables. Also remember to buy a large storage card.

Finally, think about how you will store your camera. If you are working with kids, think about a soft-side lunch bag with the school logo. It is less likely to be stolen. Also remember battery rechargers and extra memory cards.

INTRODUCE PHOTOS AS STORIES

Before jumping into digital photography with children, introduce young people to photographs in storytelling. For instance, read *Owen & Mzee: The True Story*

of a Remarkable Friendship, by Isabella Hatkoff, Craig Hatkoff, and Paula Kahumbu. It is the true story of a hippo and a tortoise, told through photographs. Discuss the role of photographs in telling the story.

Ask children to think about the stories that they could tell with photographs. Ask students to write a story based on a single photo; then provide photo starters—start/finish, before/after, and now/then. What story could you write using two garden photos? (See Figures 1 and 2.) Talk about the use of close-up, medium, and distance shots, using sets of photographs.

FIGURE 1



Beginning of a Photo Story Set in a Garden

FIGURE 2



Conclusion of a Photo Story Set in a Garden



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AUDIOBOOKS

K-12

Blood red horse. K. M. Grant. Read by Maggie Mash. Recorded Books, 2005. \$97.75. CD. 978-1-4193-5606-3. Grades 8-12. A sweeping tale of the Second Crusade revolves around a red stallion and themes of religious intolerance, sibling rivalry, and the role of women in medieval European society. Fluid narration captures the main characters and their struggles to make sense of their complex world.

The doorbell rang. Pat Hutchins. Read by Suzanne Toren. Live Oak Media, 2001. \$28.95. Hardcover and CD. 978-1-59112-713-0. Grades preK-2. For beginning readers, picture books provide visual clues through illustrations, which assist in the decoding process. This read-along allows children to focus on the story and on the continual redivision of a dozen cookies among friends each time the doorbell rings.

Revenge of the whale: The true story of the whaleship Essex. Nathaniel Philbrick. Read by Taylor Mali. Audio Bookshelf, 2005. \$44.95. CD. 978-0-9761932-0-3. Grades 6-12. A horrifying account of deprivation and cannibalism, said to have inspired *Moby Dick*, is read with appropriate journalistic distance. This perfect example of fine nonfiction audio is ideal for studies of the American whaling industry.

A week in the woods. Andrew Clements. Read by Ron Livingston. Listening Library, 2002. \$38.00. CD. 978-0-307-24634-9. Grades 3-5. Unforeseen events during a fifth-grade camping trip force Mark to work with his science teacher to survive. Livingston's voice perfectly conveys the emotion and indifference of adolescence in this great classroom discussion starter.

COMPOSE QUALITY PHOTOGRAPHS

Like writing a beautiful poem or an award-winning short story, creating an effective visual message takes practice, patience, skill, and technique. It also requires an artist's eye and the right subject. However, digital cameras make photography easy for everyone. Rather than wait for the right shot, take dozens of photos and choose the best.

When teaching young people to take photographs, concentrate on four questions to frame a quality image.

Where's the action? When you see a photo of smiling children standing in a row, I often ask: Where are they? What are they doing? Why are they smiling? Encourage students to take a series of photos that show an activity or experience. Take close-up, medium, and distance shots. Use these photos to develop characters, plot, and setting. What are the subjects thinking and doing? When was this photo taken? What is the location? It's easy for children to write stories based on actions. The next time you're on a field trip, involve students in taking photos that will help them tell the story of their trip to another class.

Where's the light? Most students think about the subjects in their photos rather than the settings. It is important to step back and look at the surroundings. For instance, photos taken into the sun, toward a window, or against a lamp will leave subjects in a shadow. Although lighting can distract from a shot, it can also contribute to beautiful reflections, spooky shadows, and colorful rock formations. Before taking a shot, ask students to look at the light. Tell them to try standing on different sides of an object. What position produces the best effect?

Where's the view? You have probably seen thousands of photographs of trees. However, to really understand a tree, you need to see it from many angles. How are the branches connected? Does the tree have leaves, needles, berries, or cones? What is its structure? Is the bark smooth or textured? Are the roots on the surface or underground? When you look up through the leaves or needles, can you still see the sky?

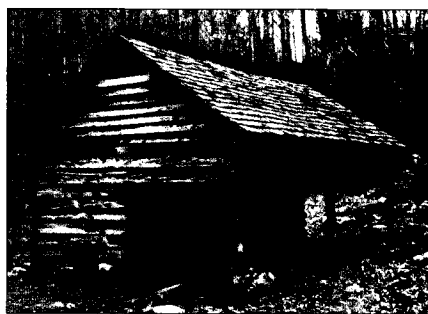
Anyone can take a photo of a famous

building, but to tell the story of the building requires pictures from many angles. What is in the foreground and background? What do the doors, windows, and walls say about the structure and when it was built? Start with an establishing shot of the whole scene, then take lots of close-ups.

When you first look at the barn, you may not notice that it is held up with rocks (see Figures 3 and 4).

When photographing a person who is working or playing, take over-the-shoulder

FIGURE 3



An Old Barn in the Woods

FIGURE 4



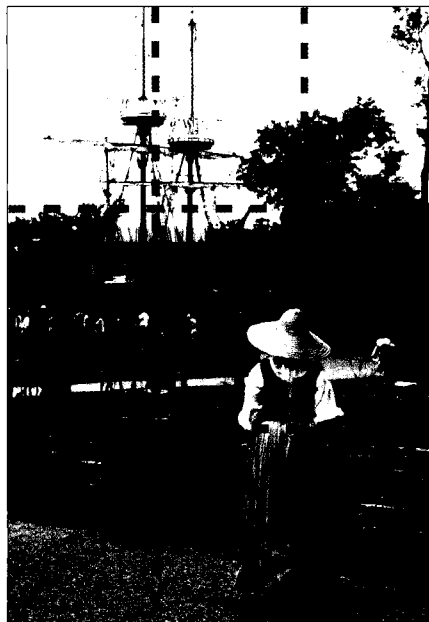
A Close-Up of the Stacked Stone Foundation of the Barn

photos to see the world from that person's point of view. This shot is particularly useful when photographing science experiments and art projects in progress.

Where's the interest? Photograph objects that draw attention, stimulate questions, and generate emotion. In your mind, divide the scene into nine parts. Rather than placing the most interesting thing in the middle of the photo, try putting cool elements off-center. This

composition is visually pleasing and helps to tell the story (see Figure 5).

FIGURE 5



A Field Trip Photo From Jamestown Settlement in Virginia. Notice how interesting features are off-center.

EIGHT ENGAGING EXPERIENCES

Let's explore eight ideas that you might try with the teachers and children in your library media program.

PHOTO SAFARIS

To practice the basics, try a simple photo safari. Pick an everyday object and see how many photo versions of it you can create. For example, how many doors can you find inside and outside the school? Take photographs of these doors, telling different stories. Before sending students out with cameras, review the following four steps:

See it: Keep your eyes open—that is, be on the lookout for photographic moments.

Log it: Write down the story so that you will remember it later.

Take it: Take shots from different angles.

Share it: Be sure to share your stories with others.

PHOTO GAMES

From photo puzzles to "I Spy" books, have

fun with photography. Print large photos and cut them up to make puzzles, or use an online photo puzzle maker such as www.jigzone.com.

Create photo games—for example, matching the photos of objects to their Spanish-word equivalents, labeling the parts of an object, or sequencing the photos of the water cycle. Use photography as a hands-on method to reinforce concepts and vocabulary, such as opposites, rhyming words, and emotions.

Read the "I Spy" books from Scholastic and check out its web site <http://www.scholastic.com/ispy>; use both as inspiration for your own "I Spy" photographs and poems.

PHOTO QUESTIONS

Take photos that stimulate questions. For example, photographs of an anthill, bird's nest, or hole in a tree might stimulate an inquiry, spurring questions such as "What lives here?" "Why?" "What are their lives like?" "What are they doing right now?" Microscopic images, photos of camouflaged animals, and images from places around the world can all stimulate questions, discussions, and inquiry.

Also think about photos in mathematics. Ask small groups of students to take photos and write math problems for others to solve.

PHOTO COLLECTIONS

Encourage young people to start photo collections. They can start by photographing existing collections, such as those consisting of toy cars, figurines, or stuffed animals. However, what makes this sort of photography unique is the ability to create a digital collection of items that would be lost or impossible to collect physically. For instance, historical rock art can be collected with a digital camera (Figure 6). Young people might keep photo collections of their favorite Lego block creations, cake-decorating projects, or fall leaves. Students can then use the photos in school reports or write their own nonfiction books or web sites.

FIGURE 6



Photograph From a Rock Art Photo Collection

PHOTO COMICS

Why write a report about a field trip or a science project when you can create an exciting photo comic of the experience? Software such as Comic Life (www.plasq.com/comiclife) allows young people to easily create high-quality comics. Users simply drag the photos into frames and add bubbles.

Seek ways to promote photo comics schoolwide. Work with a group on developing a new-student guide in the photo-comic format. Or form a Green School club and build photo comics that illustrate what can and cannot be recycled in the school.

PHOTO POSTCARDS

Many photo software tools contain options for printing postcards, or you can simply resize your photo to standard postcard size (4 inches by 6 inches). A PowerPoint slide is also an easy way to create a postcard. You are probably familiar with projects based on the book *Flat Stanley*, by Jeff Brown. Enhance your project with digital photos. Explore *Flat Stanley* postcards from Arizona and New Mexico at www.eduscapes.com/flat/ (see Figure 7).

PHOTO SCRAPBOOKS

Encourage teachers to use photos as part of nontraditional student projects. Rather than an essay, how about an electronic scrapbook?

FIGURE 7



Photo Postcard Featuring Flat Stanley

PowerPoint is a great tool for this type of project. Start with blank slides; add photographs; add text to small boxes or speech bubbles. Longer narratives, descriptions, and citations can be placed in the speaker notes area below the slide. The scrapbook can be printed with or without the notes. Remind students that they can take photos of all kinds of objects. For instance, a photograph of a nutrition label from a cereal box might be used in a scrapbook about healthy foods. A photograph of a smoke alarm might be used to discuss fire safety procedures.

Consider ongoing projects that might be expanded over several weeks or months. For instance, a class might take a weekly photograph of a local construction project and write about all the equipment that is used for building.

Combine student-produced photos with other photos. For instance, teens might compare their town today with that of 100 years ago, or they might create a photo scrapbook comparing life in America with other cultures.

One advantage of an electronic scrapbook is the ability to add audio narration, locally produced music, sound effects, and short video clips.

The e-scrapbooking web site <http://www.escrapbooking.com/projects> contains lots of ideas for photo-rich student projects.

PHOTO-BOOK CONNECTIONS

The success of books by the publisher Dorling Kindersley reflects the power of combining high-quality photographs and descriptive text to produce appealing nonfiction materials for all ages. Explore the nonfiction section of your library for photo-rich examples. In the *Scientist in the Field* series, by Sy Montgomery and Nic Bishop, photographs are used to share the exciting lives of zoologists, entomologists,

and other scientists doing fieldwork. Katya Arnold's book *Elephants Can Paint Too!* tells the true story of how an artist teaches elephants to paint.

The Milestone Project: Celebrating Childhood Around the World, by Richard Steckel and Michele Steckel, is a book with an accompaniment web site (www.milestonesproject.com) that features photographs from key moments and experiences in the lives of young people. It would serve as a wonderful springboard for your own class book.

You can also find many photo-rich books in your fiction collection. Use these as inspiration for student projects as well as models of effective photography. For instance, each chapter in the book *The Silent Boy*, by Lois Lowry, is based on a historical photograph.

The picture books *Lost in the Woods* and *Stranger in the Woods* are part of the *A Photographic Fantasy* series, by Carl R. Sams, that follow the experiences of a young deer.

Also integrate books with the theme of photography. An underwater camera places a central role in the Caldecott Medal book *Flotsam*, by David Wiesner. And *Russell and the Lost Treasure*, by Rob Scotton, describes photos as treasures. This book provides a perfect opportunity to create memories and share understandings through digital photographs.

VISUAL COMMUNICATION ACROSS THE CURRICULUM

Teacher-librarians play an essential role in promoting the use of photography in the classroom. Collaborate with teachers to promote nontraditional approaches to teaching and learning that motivate and engage young learners.

As teachers search for ways to differentiate instruction, introduce visual communication as a tool for adjusting the content, process, and products of the teaching and learning environment to meet individual needs. Rather than simply read about photosynthesis, why not go on a photo safari with a class, photographing evidence in the plants around your school?

Digital photography is a wonderful way to collaborate with teachers who are easily overlooked. Talk with your physical education teachers about developing photo-enhanced safety guides and getting students involved with illustrating the rules

of a game or skills of a sport.

CONCLUSION

In his book *Last Child in the Woods*, Richard Louv expresses his concern that children have become disconnected from the natural world. Use digital photography as an opportunity to combine authentic place-based learning with the power of technology.

To print a web comic that you can use with children when teaching about digital photography, go to our web site at <http://www.eduscapes.com/sessions/safari/comic.html>

BOOKS MENTIONED

Elephants can paint too! Katya Arnold. Atheneum/Anne Schwartz Books, 2005. 978-0-689-86985-3.

Flat Stanley. Jeff Brown. Ill. Scott Nash. HarperCollins, 2006. 978-0-06-112904-9.

Flotsam. David Wiesner. Clarion Books, 2006. 978-0-618-19457-5.

Last child in the woods: Saving our children from nature-deficit disorder. Richard Louv. Algonquin Books, 2006. 978-1-56512-522-3.

Lost in the woods: A photographic fantasy. Carl R. Sams. Carl R. Sams II Photography, 2004. 978-0-9671748-8-4.

The milestone project: Celebrating childhood around the world. Richard Steckel and Michele Steckel. Tricycle Press, 2007. 978-1-58246-228-8.

Owen & Mzee: The true story of a remarkable friendship. Isabella Hatkoff, Craig Hatkoff, and Paula Kahumbu. Ill. Peter Greste. Scholastic Press, 2006. 978-0-439-82973-1.

Russell and the lost treasure. Rob Scotton. Harper Collins, 2006. 978-0-00-720625-4.

The silent boy. Lois Lowry. Laurel Leaf, 2005. 978-0-440-41980-8.

Stranger in the woods: A photographic fantasy. Carl R. Sams. Carl R. Sams II Photography, 1999. 978-0-9671748-0-8.